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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,641	07/28/2006	Enis Ersue	3805	9858

7590
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Huntington, NY 11743

02/10/2009

EXAMINER

MERLINO, AMANDA H

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2877

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/587,641	Applicant(s) ERSUE ET AL.	
	Examiner AMANDA H. MERLINO	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/18/07</u> . | 6) <input checked="" type="checkbox"/> Other: <u>translation for DE19739250</u> . |

Claim Objections

Claims 5 objected to because of the following informalities:

a) on line 4 of claim 5, "body (2) with the surface to be inspected are movable" is unclear;

b) on line 3 of claim 11, it appears that "are excepted" should read "are accepted."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claim 7 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 7, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 5-14 rejected under 35 U.S.C. 102(b) as being anticipated by Klaus et al (DE 19739250). Examiner is attaching a machine translation of DE 19739250 to this office action. Please refer to the translation for the rejection below.

With regard to claims 1 and 14, Klaus et al teaches of a method and apparatus for inspecting the surfaces of a three dimensional body, with which at least one camera (K_1 , K_n) and at least one illuminating device (B_1 , B_n) are moved relative to the surface of the object, pictures are taken of areas to be inspected on the surface during the movement of the camera relative to the surface, and the pictures are transmitted to a computer and are evaluated therein (page 4; 2nd paragraph), wherein the camera, illumination device and the surface are brought into at least one defined geometric relationship with each other during the inspection of each area to be inspected on the surface, at least for period required to take a picture.

With regard to claims 2, 8 and 13, the camera, illumination device and the surface are brought into several different defined geometric relationships with each other during the inspection of each area to be inspected on the surface, at least for the period of time required to take a picture (paragraph 27).

With regard to claim 3, the defined geometric relationship is determined by the angle between the surface normals of the area to be inspected, the illumination and the camera and/or by the distance between the surface of the area to be inspected and the illumination and/or the camera (paragraph 24).

With regard to claims 5 and 16-17, the camera, illumination device and/or body (2) with the surface to be inspected are movable in one or more degrees of freedom and wherein several cameras and illumination devices and inspection units each represent separate subsystems (paragraph 19).

With regard to claim 6, the illumination takes place in a diffuse, directed or structured manner, as sustained illumination and/or flash illumination (paragraph 21).

With regard to claim 7, the illumination is directed--two-dimensional illumination (paragraph 21)

With regard to claim 9, several cameras and several illumination devices are combined to form at least two subsystems that are movable relative to the surface to be inspected, subsystems being interconnected via a communication interface, and the inspection result being created by evaluating the images of several or all of the subsystems (paragraph 20).

With regard to claim 10, the evaluation of the pictures that were taken is evaluated using image-evaluation algorithms stored in a computer system (paragraph 20).

With regard to claim 11, specifiable structures are accepted from detection as defects during the inspection (paragraph 26).

With regard to claim 12, the relative position between the surface to be inspected and the camera and/or the illumination device is detected, and the picture is taken such that it is controlled via resolution, position and/or time in accordance with the relative position (paragraph 20 and 21).

Claims 14-15 rejected under 35 U.S.C. 102(b) as being anticipated by Claridge et al (WO 87/00629).

With regard to claim 14, Claridge et al teach of a system for inspecting surfaces of a three-dimensional object, in particular for carrying out the method as recited in

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claim 1, with at least one camera (56, 57) for taking pictures of the areas to be inspected on the surface, and at least one illumination device (22), with at least one displacement device (13A-13F) that moves the camera, illumination device and body (11) relative to each other, and with an evaluation unit (178) for evaluating the pictures that were taken, characterized by a control device set up such that the camera, illumination device and surface are in at least one defined geometric relationship with each other during the inspection of every area to be inspected on the surface (col 3; lines 10-11)

With regard to claim 15, The system as recited in claim 14, wherein at least one camera and at least one illumination device are located in a single inspection unit (3, 4).
16.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Klaus et al (DE 19739250). Examiner is attaching a machine translation of DE 19739250 to this office action. Please refer to the translation for the rejection below.

Klaus et al teaches of a method and apparatus for inspecting the surfaces of a three dimensional body, with which at least one camera (K1, Kn) and at least one illuminating device (B1, Bn) are moved relative to the surface of the object, pictures are

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taken of areas to be inspected on the surface during the movement of the camera relative to the surface, and the pictures are transmitted to a computer and are evaluated therein (page 4; 2nd paragraph), wherein the camera, illumination device and the surface are brought into at least one defined geometric relationship with each other during the inspection of each area to be inspected on the surface, at least for period required to take a picture.

Klaus et al lacks the teaching of different sized areas to be inspected are selected depending on the curvature of the surface.

Snow (2,315,282) teaches of controlling the size of the illuminated area because of varying curvatures (page 3; col 1; lines 38-43).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to control the size of the illuminate area because of varying curvatures in the inspection apparatus taught by Klaus et al for the specific reasons stated by Snow which is that a surface of small radius of curvature is more accurately analyzed if its area of illumination is narrow which would provide a more accurate and precise measurement.

Claims 18-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Claridge et al (WO 87/00629).

Claridge et al teach of a system for inspecting surfaces of a three-dimensional object, in particular for carrying out the method as recited in claim 1, with at least one camera (56, 57) for taking pictures of the areas to be inspected on the surface, and at least one illumination device (22), with at least one displacement device (13A-13F) that

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moves the camera, illumination device and body (11) relative to each other, and with an evaluation unit (178) for evaluating the pictures that were taken, characterized by a control device set up such that the camera, illumination device and surface are in at least one defined geometric relationship with each other during the inspection of every area to be inspected on the surface (col 3; lines 10-11).

With regard to claims 18-19, Claridge lacks the teaching of 3-dimensional calibration.

Official Notice is taken that 3-dimensinal calibration are old and well known in the art. See In Re Malcolm 1942C.D.589:543 O.G.440.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to calibrate the cameras (adjust output to agree with standard) which would provide a more accurate and precise measurement

Several facts have been relied upon from the personal knowledge of the examiner about which the examiner took Official Notice. Applicant must seasonably challenge well known statements and statements based on personal knowledge when they are made. In re Selmi, 156 F.2d 96, 70 USPQ 197 (CCPA 1946); In re Fischer, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice). If applicant does not seasonably traverse the well-known statement during examination, then the object of the well known statement is taken to be admitted prior art. In re Chevenard, 139 F.2d 71, 60 USPQ 239

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(CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well-known statement in the **next reply** after the Office action in which the well known statement was made.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda H Merlino whose telephone number is 571-272-2421. The examiner can normally be reached on Monday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J Toatley, Jr. can be reached on 571-272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Amanda H Merlino /A. H. M./
Patent Examiner
Art Unit 2877
January 8, 2009

/Gregory J. Toatley, Jr./
Supervisory Patent Examiner, Art Unit 2877
1/16/09